

PILOT bug -- 30-Jan-80

A bug exists in the current version of Atari PILOT which produces unpredictable results when string indirection is used as the target of an I/O operation using the READ: and A: commands. The two forms which fail are shown below:

```
A:$$<string name>
READ:<device>,$$<string name>
```

All other uses of string indirection work as advertised; for example:

```
A:$$<string name>=<text expression>
C:$$<string name>=<text expression>
$$<string name> within a <text expression>
```

The bug is easily avoided by doing the indirect assignments in two steps as shown below:

```
A:$TEMP
C:$$TARGET=$TEMP
```

or

```
READ:<device>,$TEMP
C:$$TARGET=$TEMP
```

Add to end of
PILOT external
Spec.

PILOT BEHAVIORS -- 22-DEC-80

THERE ARE SEVERAL UNEXPECTED BEHAVIORS ASSOCIATED WITH THE 1-DEC-80 VERSION OF PILOT; THESE ARE EXPLAINED IN THE PARAGRAPHS THAT FOLLOW.

1. %Z BUGS -- THERE ARE TWO KNOWN BUGS RELATING TO THE IMPLEMENTATION OF THE SPECIAL VARIABLE %Z. THE FIRST BUG IS THAT WHEN A LINE SEGMENT IS DRAWN WHICH LEAVES THE SCREEN (DRAW, DRAWTO, FILL OR FILLTO), %Z WILL RETURN THE VALUE OF THE POINT AT WHICH THE LINE SEGMENT ENDS (WITHIN THE SCREEN). THIS PROBLEM MAY BE RESOLVED BY ADDING A 'GR:GO 0' BETWEEN THE LINE DRAW AND THE %Z USAGE.

THE SECOND BUG IS THAT THERE IS AN INTERACTION BETWEEN STRING VARIABLE ACCESSES AND %Z SUCH THAT %Z WILL RETURN AN INVALID VALUE WHENEVER THERE IS A STRING ACCESS BETWEEN THE ESTABLISHMENT OF THE GRAPHICS CURSOR POSITION AND THE USE OF %Z. THIS PROBLEM MAY BE RESOLVED BY ADDING A 'GR:GO 0' JUST PRIOR TO THE %Z USAGE. THE PROBLEM IS COMPLICATED IF THE USER WANTS TO USE %Z AS PART OF A STRING ASSIGNMENT OR IN ANY TEXT EXPRESSION CONTAINING A STRING VARIABLE; IN THIS CASE THE PROBLEM IS RESOLVED BY ASSIGNING %Z TO A NUMERIC VARIABLE PRIOR TO ITS INTENDED USE.

THE EXAMPLES BELOW SHOW THE RECOMMENDED RESOLUTIONS FOR THE PROBLEMS MENTIONED ABOVE:

GR: TURN ?; DRAW ?	[COULD BE OFF THE SCREEN.
GR: GO 0	[FORCES CORRECT CURSOR POSITION.
T: %Z	

GR: PEN UP; GOTO #X, #Y	
T: HELLO \$NAME	[CLOBBERS %Z'S CURSOR POSITION.
GR: GO 0	[REESTABLISHES %Z'S CURSOR POSITION.
T: %Z	

GR: PEN UP; GOTO #X, #Y	
C: #Z=%Z	
C: \$FIFO=\$FIFO, %Z	

PILOT CHANGES -- 10-Dec-80

The following changes have been incorporated into Atari PILOT starting with the 01-Dec-80 version.

1. The execution of a Load command while in run mode now clears the Use stack.
2. The Write statement syntax has been changed from:

```
<Write operand> ::= <device><sep><texp>  
<sep> ::= ,|<space>|<sep><sep>
```

to

```
<Write operand> ::= <device><wsep><texp>  
<wsep> ::= ,|<space>
```

This means that leading commas and spaces may now be written to a device using a text literal within the text expression; prior to this change, leading spaces and commas were ignored.

3. The Auto-number screen color and luminance are now alterable by the user; the default values are setup in RAM at power-up time and are not altered by the PILOT interpreter thereafter except by command of the operator, as shown below.

```
C:@B134=<background color/lum value>  
C:@B135=<letter lum value>
```